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Subject: Re: ATAN function with two ARGS  
Posted by [davidf](#) on Mon, 05 Jun 2000 07:00:00 GMT  
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Ben Tupper (tupper@seadas.bigelow.org) writes:

>> From now on I'm writing  
>> with a renewed spirit of obfuscation. Where's my thesarus?!  
>>  
>  
> I'm off to a great start! Obfuscate!

Oh, shoot. And I thought you were trying to  
get points with the IDL EPA nominating committee  
for "unintentional humorous composition." :-)

Cheers,

David

--

David Fanning, Ph.D.  
Fanning Software Consulting  
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Coyote's Guide to IDL Programming: <http://www.dfanning.com/>  
Toll-Free IDL Book Orders: 1-888-461-0155

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Subject: Re: ATAN function with two ARGS  
Posted by [Ben Tupper](#) on Mon, 05 Jun 2000 07:00:00 GMT  
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Ben Tupper

Bigelow Laboratory for Ocean Science  
[tupper@seadas.bigelow.org](mailto:tupper@seadas.bigelow.org)

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Subject: Re: ATAN function with two ARGS  
Posted by [Ben Tupper](#) on Mon, 05 Jun 2000 07:00:00 GMT  
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David Fanning wrote:

> Ben Tupper (tupper@seadas.bigelow.org) writes:  
>  
>> If this argument is supplied, ATAN returns the angle whose tangent  
>> is equal to Y/X. If both arguments are zero, the result is undefined.  
>  
> Notice they don't say the "result of the function" is  
> undefined. If they did, I could understand your confusion.  
> But here they have made a truthful and accurate statement.  
> \*Implying\* that they were talking about the result of the  
> function is an old technical writers trick that allows one  
> to remain truthful, while still confusing the rift-raft.  
>  
> You have to read this documentation \*much\* more carefully,  
> Ben, if you have any hopes of winning a commission  
> in the IDL Expert Programmers Association. :-)  
>

Geez,

I am beginning to suspect that entry into IDL EPA requires much more subtle documentation than I have been writing. From now on I'm writing with a renewed spirit of obfuscation. Where's my thesarus?!

You don't suppose that Oscar Gamble wrote the documentation do you?

Ben

--

Ben Tupper

Bigelow Laboratory for Ocean Science  
tupper@seadas.bigelow.org

pemaquidriver@tidewater.net

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Subject: Re: ATAN function with two ARGS

Posted by [davidf](#) on Mon, 05 Jun 2000 07:00:00 GMT

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David

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David Fanning, Ph.D.

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Subject: Re: ATAN function with two ARGS

Posted by [K. Bowman](#) on Tue, 06 Jun 2000 07:00:00 GMT

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In article <MPG.13a582048e3c14e9989b49@news.frii.com>, David Fanning <davidf@dfanning.com> wrote:

> Ben Tupper (tupper@seadas.bigelow.org) writes:

>

>> If this argument is supplied, ATAN returns the angle whose tangent  
>> is equal to Y/X. If both arguments are zero, the result is undefined.

>

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> undefined. If they did, I could understand your confusion.  
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> \*Implying\* that they were talking about the result of the  
> function is an old technical writers trick that allows one  
> to remain truthful, while still confusing the rift-raft.

The result of ATAN(0.0,0.0) in IDL is implementation dependent, viz.

Logging into SGI IRIX

IDL Version 5.3 (IRIX mipseb). (c) 1999, Research Systems, Inc.

```
IDL> print, atan(0.0, 0.0)
0.00000
```

Logging into DEC Unix

IDL Version 5.3 (OSF alpha). (c) 1999, Research Systems, Inc.

```
IDL> print, atan(0.0, 0.0)
-NaN
```

In some cases it really is undefined. ;-)

Ken

One of the riff-raff (i.e., those people or that segment of society regarded as worthless, disreputable, insignificant, etc.; rabble)

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Subject: Re: ATAN function with two ARGS

Posted by [Ben Tupper](#) on Tue, 06 Jun 2000 07:00:00 GMT

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Ben Tupper wrote:

```
> In comp.lang.idl-pvwave you write:
>
>> Hello,
>
>> I have bumped into a conflict between the IDL documentation and IDL output.
>
>> From the IDL (5.2) docs, the optional argument Y is described as follows:
>
>> -----START
>> Y
>> An optional argument.
>
>> If this argument is supplied, ATAN returns the angle whose tangent
>
>> is equal to Y/X. If both arguments are zero, the result is undefined.
```

```

>
>> -----END
>
>> So I tried the following...
>
>> IDL> help, ATAN(0.0,0.0)
>> <Expression>  FLOAT  =    0.00000
>
>> Uhoh! Is it me, or is it Monday morning syndrome?
>
>> Ben
>
> When I try the above command, I get
>
> IDL> help,atan(0.0,0.0)
> <Expression>  FLOAT  =    -NaN
>
> IDL> help,/struct,!version
> ** Structure !VERSION, 5 tags, length=80:
>  ARCH          STRING  'alpha'
>  OS             STRING  'OSF'
>  OS_FAMILY     STRING  'unix'
>  RELEASE       STRING  '5.2'
>  BUILD_DATE    STRING  'Oct 30 1998'
>
> William Thompson
>

```

The above was sent to me by William Thompson. Below is the version info for the platform not returning the undefined value.  
I've sent notice of this anomaly to RSI.

Thanks,

Ben

```

IDL> help,!version
<Expression>  STRUCT  = -> !VERSION Array[1]
IDL> help,!version,/str
** Structure !VERSION, 5 tags, length=40:
  ARCH          STRING  'sparc'
  OS             STRING  'sunos'
  OS_FAMILY     STRING  'unix'
  RELEASE       STRING  '5.2'
  BUILD_DATE    STRING  'Oct 30 1998'
IDL> help, ATAN(0.0, 0.0)
<Expression>  FLOAT  =    0.00000

```

--

Ben Tupper

Bigelow Laboratory for Ocean Science

tupper@seadas.bigelow.org

pemaquidriver@tidewater.net

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